

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A method of applying an electrochemical influence to a component of a machine, in situ, the method comprising:

connecting the component, while in situ, into an electrolysis system so that the component functions as at least one electrode of the system;

applying an electrolyte to the component;

causing current flow through the electrolyte to effect electrochemical cleaning of the component in situ; and

periodically switching a voltage applied to the component to cause the component periodically to alternate between being an anode and a cathode of the system.

2. (Currently Amended) The method of claim 1 ~~which includes~~ further comprising using a switching device in the system to cause the component to switch between functioning as the cathode and as the anode of the system.

3. (Currently Amended). The method of claim 1 ~~or claim 2 which includes~~ further comprising selecting the electrolyte from the group comprising phosphoric acid and sodium hydroxide.

4. (Currently Amended) The method of ~~any one of the preceding claims which~~
~~includes~~ claim 1 further comprising limiting the current flow through the electrolyte
by varying a voltage applied to the system.

5. (Currently Amended) The method of ~~any one of the preceding claims which~~
~~includes~~ claim 1 further comprising circulating the electrolyte through the system.

6. (Currently Amended) A method of cleaning a bank of spaced metal objects ~~which~~
~~comprises~~ comprising:

while the objects are in situ, making one of the objects function as a cathode of
an electrolysis system and making another of the objects function as an anode of the
electrolysis system;

applying an electrolyte to the objects;

applying a voltage between the object acting as the cathode and the object
acting as the anode; and

periodically switching the voltage applied to the objects to cause the objects
periodically to alternate between acting as the anode and the cathode of the system.

7. (Currently Amended) The method of claim 6 ~~which includes~~ further comprising
using a switching device in the system to switch the objects between functioning as
the cathode and as the anode of the system.

8. (Currently Amended) The method of claim 6 ~~or claim 7 which includes~~ further comprising selecting the electrolyte from the group comprising phosphoric acid and sodium hydroxide.

9. (Currently Amended) The method of ~~any one of claims 6 to 9 which includes~~ claim 6 further comprising limiting the current flow through the electrolyte by varying a voltage applied to the system.

10. (Currently Amended) The method of ~~any one of claims 6 to 9 which includes~~ claim 6 further comprising circulating the electrolyte through the system.

11. (Currently Amended) The method of ~~any one of claims 6 to 10 in which the objects are plates of a heat exchanger and in which the method includes~~ claim 6 further comprising causing a plurality of the plates to function as the cathode and a further, different plurality of the plates to function as the anode, wherein the objects comprise plates of a heat exchanger.

12. (Currently Amended) The method of claim 11 ~~which includes~~ further comprising selecting each alternate plate initially as a cathode with the remaining alternate plates functioning initially as the anode of the system.

13. (Currently Amended) ~~An electrochemical Electrochemical~~ cleaning apparatus
~~which comprises~~ comprising:

a power source;

a connecting arrangement connected to the power source, the connecting arrangement providing for the connection of a component of machinery to be cleaned, while the component is in situ, to the power source to enable the component to function as at least one electrode of an electrolysis system;

a reservoir for an electrolyte, the reservoir being coupled, in use, to a part of the machinery to apply the electrolyte to the component; and

a switching device arranged between the power source and the component to cause the component periodically to switch between functioning as a cathode and as an anode of the system.

14. (Currently Amended) The apparatus of claim 13 ~~in which~~ wherein the electrolyte is selected from the group comprising phosphoric acid and sodium hydroxide.

15. (Currently Amended) The apparatus of claim 13 ~~or claim 14 in which~~ wherein the power source comprises a variable voltage source for controlling current flow through the electrolyte.

16. (Currently Amended) The apparatus of ~~any one of claims 13 to 15 which includes~~
claim 13 further comprising a circulating means for circulating the electrolyte through
the system.

17. (Currently Amended) An electrochemical cleaning assembly for cleaning a bank
of spaced metal objects, the assembly comprising[[:]]

an electrochemical cleaning apparatus ~~as claimed in any one of claims 13 to~~
~~16~~; and

a plurality of ~~the~~ objects connected to ~~the~~ [[a]] connecting arrangement of the
~~apparatus assembly~~ while the objects are in situ, so that at least one of the objects
functions initially as a cathode of an electrolysis system ~~so formed~~ and at least one
other of the objects functions initially as an anode of the electrolysis system.

18. (Currently Amended) The assembly of claim 17, ~~in which~~ wherein the switching
device periodically switches the objects to cause the object that had been functioning
as the cathode to function as the anode and vice versa.

19. (Currently Amended) The assembly ~~of claim 17 or claim 18 in which~~ of claim 17,
wherein the objects ~~are~~ comprise plates of a heat exchanger and a plurality of the
plates function as the cathode and a further, different plurality of the plates function
as the anode.

20. (Currently Amended) The assembly of claim 19 ~~in which~~ wherein each alternate plate functions initially as a cathode with the remaining alternate plates functioning initially as the anode of the system.